Amendments to the Claims:

Claims 1-51: (Canceled)

51. (Previously Amended) A method of detecting at least one hybridization complex comprising a target nucleic acid, said method comprising:

a) adding a target nucleic acid to an array to form at least a first hybridization complex, said array comprising a solid support having a plurality of regions, each region comprising an electrode and a self-assembled mixed monolayer comprising

i) blocking moieties, having a first end attached to said electrode, wherein said blocking moieties shield nucleic acids from said electrode; and

ii) at least one modified nucleic acid comprising a nucleic acid and a linker moiety having a first and second end;

wherein said first end of said linker is attached to said electrode and said second end is covalently attached to said nucleic acid;

wherein at least two different regions comprise different probe nucleic acids;

b) adding an agent that distinguishes between single and double stranded nucleic acids; and

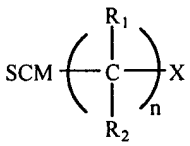
c) detecting the presence of said first hybridization complex.

52. (Previously Amended) A method according to claim 51,wherein said first end of said blocking moieties is attached to said electrode via a sulfur linkage.

53. (Previously Amended) A method according to claim 52, wherein said first end of said linker is attached to said electrode via a sulfur linkage.

54. (Previously Amended) A method according to claim 51, 52, or 53, wherein said electrode comprises gold.

55. (Previously Amended) A method according to claim 51, wherein said blocking moieties have the formula:



wherein

SCM is a sulfur-containing moiety, wherein said sulfur containing moiety is attached to said electrode;

R_1 and R_2 are independently selected from the group consisting of hydrogen and substituent groups;

n is an integer from 3 to 50; and

X is a terminal group.

56. (Previously Amended) A method according to claim 55, wherein R_1 and R_2 are hydrogen.

57. (Previously Amended) A method according to claim 56, wherein said blocking moieties comprise alkyl groups.

58. (Previously Amended) A method according to claim 54, 55, or 56, wherein n is ≥ 6.

59. (Previously Amended) A method according to claim 51,wherein said blocking moiety is a branched molecule.

60. (Previously Amended) A method according to claim 59, wherein said blocking moiety is a straight chain alkyl group.

61. (Previously Amended) A method according to claim 60, wherein said alkyl ranges from 1 to 20 carbon atoms.

62. (Previously Amended) A method according to claim 51, wherein said array comprises a plurality of different blocking moieties.

63. (Previously Amended) A method according to claim 62, wherein at least one of said blocking moieties is a branched molecule.

64. (Previously Amended) A method according to claim 66, 62 or 63, wherein at least one of said blocking moieties is an alkyl group.

65. (Previously Amended) A method according to claim 55, wherein for said blocking moiety,

SCM is a thiol containing moiety;
R_1 and R_2 are hydrogen;
n is 16; and
X is hydroxyl.

Claim 66 (Canceled)

67. (Previously Amended) A method according to claim 51, wherein said linker moiety is a straight chain alkyl group.

68. (Previously Amended) A method according to claim 67, wherein said alkyl group ranges from 1 to 20 carbon atoms.

69. (Previously Amended) A method according to claim 51, wherein for said linker moiety,
SCM is a thiol containing moiety;
R_1 and R_2 are hydrogen;
n is 16; and

Y is oxygen.

Claim 70 (Canceled)

71. (Previously Amended) A method according to claim [[70]] 69, wherein R_1 and R_2 are hydrogen.

72. (Previously Amended) A method according to claim [[51]] 55, wherein n is ≥ 6.

Claim 73 (Canceled)

74. (Previously Amended) A method according to claim 51, wherein said blocking moiety comprises a phosphorus-containing moiety.

75. (Previously Amended) A method according to claim 51, wherein said nucleic acid is attached to said linker at a 2' position of a ribose.

76. (Previously Amended) A method according to claim 51, wherein said nucleic acid is attached to said linker at a 3' position of a ribose.

77. (Previously Amended) A method according to claim 51, wherein said nucleic acid is attached to said linker at a base of said nucleic acid.

78. (Previously Amended) A method according to claim 51, wherein said nucleic acid is attached to said linker at a phosphate linkage of said nucleic acid.

79. (Previously Amended) A method according to claim 51, wherein said agent is an intercalating agent.

80. (Previously Presented) A method of detecting at least one hybridization complex comprising a target nucleic acid, said method comprising:

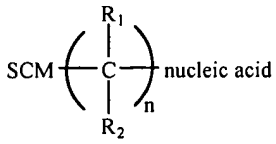
a) adding a target nucleic acid to an array to form at least a first hybridization complex, said array comprising a solid support having a plurality of regions, each region comprising an electrode and a self-assembled mixed monolayer comprising

i) blocking moieties, having a first end attached to said electrode, wherein said blocking moieties shield nucleic acids from said electrode; and

ii) at least one modified nucleic acid comprising a nucleic acid and a linker moiety having a first and second end;

wherein said first end of said linker is attached to said electrode and said second end is covalently attached to said nucleic acid; and

wherein said modified nucleic acid the formula:



wherein:

SCM is a sulfur-containing moiety, wherein said sulfur containing moiety is attached to said electrode;

R_1 and R_2 are independently selected from the group consisting of hydrogen and substituent groups; and

n is an integer from 3 to 50; and

wherein at least two different regions comprise different probe nucleic acids;

b) adding an agent that distinguishes between single and double stranded nucleic acids; and

c) detecting the presence of said first hybridization complex.

81. (Previously Presented) A method of detecting at least one hybridization complex comprising a target nucleic acid, said method comprising:

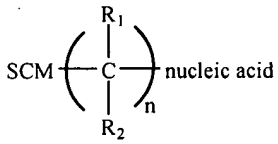
a) adding a target nucleic acid to an array to form at least a first hybridization complex, said array comprising a solid support having a plurality of regions, each region comprising an electrode and a self-assembled mixed monolayer comprising

i) branched molecule blocking moieties, having a first end attached to said electrode, wherein said blocking moieties shield nucleic acids from said electrode; and

ii) at least one modified nucleic acid comprising a nucleic acid and a linker moiety having a first and second end;

wherein said first end of said linker is attached to said electrode and said second end is covalently attached to said nucleic acid; and

wherein said modified nucleic acid the formula:



wherein:

SCM is a sulfur-containing moiety, wherein said sulfur containing moiety is attached to said electrode;

R_1 and R_2 are independently selected from the group consisting of hydrogen and substituent groups; and

n is an integer from 3 to 50; and

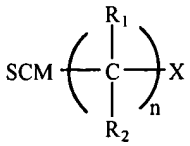
wherein at least two different regions comprise different probe nucleic acids;

b) adding an agent that distinguishes between single and double stranded nucleic acids; and

c) detecting the presence of said first hybridization complex.

82. (Previously Presented) A method according to claim 80 or 81 wherein said first end of said blocking moieties is attached to said electrode via a sulfur linkage.

83. (Previously Presented) A method according to claim 80 or 81 wherein said blocking moieties have the formula:



wherein

SCM is a sulfur-containing moiety, wherein said sulfur containing moiety is attached to said electrode;

R_1 and R_2 are independently selected from the group consisting of hydrogen and substituent groups;

n is an integer from 3 to 50; and

X is a terminal group.

84. (Previously Presented) A method according to claim 80, wherein said blocking moiety is a branched molecule.

85. (Previously Presented) A method according to claim 80 or 81, wherein said array comprises a plurality of different blocking moieties.

86. (Previously Presented) A method according to claim 80 or 81, wherein for said linker moiety,

SCM is a thiol containing moiety;

R_1 and R_2 are hydrogen;

n is 16; and

Y is oxygen.

87. (Previously Presented) A method according to claim 80 or 81, wherein n is ≥ 6.

88. (Previously Presented) A method according to claim 80 or 81, wherein said blocking moiety comprises a phosphorus-containing moiety.

89. (Canceled)

90. (Previously Presented) A method according to claim 80 or 81, wherein said nucleic acid is attached to said linker at a 2' position of a ribose.

91. (Previously Presented) A method according to claim 80 or 81, wherein said nucleic acid is attached to said linker at a 3' position of a ribose.

92. (Previously Presented) A method according to claim 80 or 81, wherein said nucleic acid is attached to said linker at a base of said nucleic acid.

93. (Previously Presented) A method according to claim 80 or 81, wherein said agent is an intercalating agent.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance and early notification to that effect is respectfully requested. Please direct any calls in connection with this application to the undersigned attorney at (415) 781-1989.

Respectfully submitted,
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